

PHYSICAL SCIENCED3110
Mrs. Ellis P. 2Name KEY

In each of the following situations, identify the method of heat transfer taking place (conduction, convection, radiation). More than one process may be occurring.

1. Hot coffee is stirred with a spoon, the spoon gets hot due to CONVECTION.
2. A chair is placed several feet from a fire in a fireplace. The side of the chair facing the fireplace gets warm because of RADIATION.
3. A lava lamp contains colored wax and colored liquid. The wax forms globs that break off and rise to the top of the liquid. The globs rise due to CONVECTION.
4. Near the ceiling of a room the air is warmer. The warm air rises because of CONVECTION.
5. A college student holds the back of his hand near an iron to see if it is hot. Heat is transferred to his hand by RADIATION.
6. A heater is placed under one corner of a water bed mattress. Warm water moves throughout the mattress because of CONVECTION.
7. A certain type of stainless steel cookware has a layer of copper applied to the bottom to help it heat evenly. The copper transfers heat to the pan by CONDUCTION.
8. One end of a copper rod is placed in a flame of a Bunsen burner. Small pieces of wax placed along the rod melt at progressively larger distance from the flame. Heat is transferred through the rod by CONDUCTION.
9. A house burns down. On the house across the street, all of the vinyl siding is twisted and warped by the heat. The heat was transferred across the street by RADIATION.
10. Warm air over the beach rises while cooler dense air from the ocean rushes in due to CONVECTION.
11. The metal skewer gets so hot that you drop your marshmallow in the campfire because of CONDUCTION.
12. A huge rock at the state park gets so hot during the day that you can't sit on it from RADIATION IS WHY THE ROCK GETS HOT
CONDUCTION IS THE REASON YOU CANNOT TOUCH IT
13. A fireman feels a door and it is hot from the fire on the other side due to RADIATION.